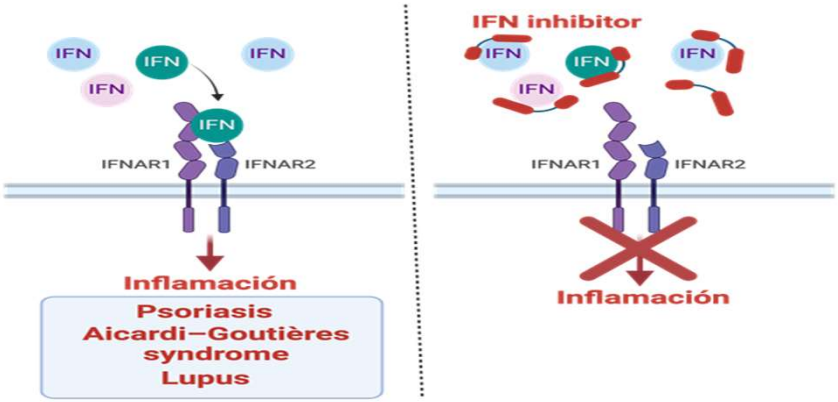
Technology Offer CSIC/EG/128

IFN-I inhibitor for interferonopathies treatment



Inhibitor of Interferon type I (IFN-I) is capable of inhibiting the inflammatory response in those autoimmune diseases in which this cytokine is involved, called interferonopathies, such as systemic lupus erythematosus and Aicardi-Goutières syndrome.

Intellectual Property

PCT patent application

Stage of development

Preclinical in vivo

Intended Collaboration

Licensing and/or co-development

Contact

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Market need

Interferonopathies are a group of rheumatic diseases that are often severe and have an early onset. The failure of current therapies for their treatment, including monoclonal antibodies against IFN-I and IFNAR, necessitates the investigation of new molecules that can block IFN-I.

CSIC solution

Knowing that viruses have optimized their immunomodulatory mechanisms during millions of years of evolution with their hosts and taking advantage of their characteristics, it has developed an inhibitor from Vaccinia virus that is able to bind IFN-I and block its effects in vitro. Soluble receptors are not currently used in the clinic to inhibit IFN-I, which gives it a great advantage.

Competitive advantages

- It has 20 times lower immunogenicity than viral proteins.
- While a monoclonal antibody inhibits only one type of IFN-I, this inhibitor is effective against multiple types of IFN-I.
- It is soluble.
- It can be easily humanized.